

A class path is defined by use of an environment variable called ClassPath.

ClassPath is used to define the order and places to search for classes when in an execution environment and in development environments. A class locator service, known as JPS, or the Java Package Service, exposes an API which describes the class path as a single class source, with methods such as FindClass and EnumClasses regardless of the current configuration of the class path. These methods final all classes with a given name in all or a specified package, and enumerate all classes of given name respectively. However, they currently search through all the classes identified by the class path. When a JPS instance is created, it is initialized with a list of class path elements. For each element, a root object is created which represents the contents of the element. This object exposes an interface called IRoot, which has simple class location/enumeration methods, such as DoesClassExist, GetClass, and EnumClasses, each of which do what their names imply. Depending on the type of the element, a different implementation of a root object is created. For directory elements, a direct root object is created, whose IRoot method implementations result in direct searches of the root's underlying file system directory. For other elements, a root implementation that performs caching is created.